IN THE CLAIMS:

1. (ORIGINAL) A Multi-level Analog Signaling (MAS) method comprising encoding data bits represented by multi-level analog signals; transmitting the encoded data bits over at least two multi-level signal buses between a transmitter and a receiver such that, on each multi-level signal bus, during each data bit period the signal level is required to change from a first signal level to a second, different signal level; and indicating a data boundary to the receiver by holding one of the multi-level signal buses at the same level for at least two consecutive bit periods.

2. (ORIGINAL) A method as in claim 1, where encoding includes, when a data bit to be encoded is the same as the data bit encoded for an immediately prior bit period, encoding instead a strobe signal represented by a predetermined one of the levels of the multi-level analog signal, where the presence of the strobe signal at the receiver is used to generate a clock edge.

3. (ORIGINAL) A method as in claim 2, where the multi-level analog signal comprises a PAM-3 signal, where two analog signal levels convey the encoded data bits and one analog signal level conveys the strobe signal.

4. (ORIGINAL) A method as in claim 1, where the data boundary comprises one of the start or the end of a multi-bit frame.

5. (ORIGINAL) A method as in claim 4, where the multi-bit frame comprises at least 24 bits for conveying 8-bit Red, Green and Blue data between the transmitter and the receiver.

6. (ORIGINAL) A method as in claim 4, where the multi-bit frame comprises at least 24 bits for conveying 8-bit Red, Green and Blue data between a control unit of a mobile station and a display of the mobile station.

7. (ORIGINAL) A method as in claim 4, where the multi-bit frame comprises at least 24 bits for conveying 8-bit Red, Green and Blue data between a control unit of a mobile station and a camera of the mobile station.

8. (ORIGINAL) A method as in claim 1, further comprising transmitting a stream of data between the transmitter and the receiver by toggling one of the at least two multi-level signal buses between first and second signal levels to generate clock edges, and setting, so as to coincide with a generated clock edge, a signal level of another one of the at least two multi-level signal buses at a signal level representative of a logic zero signal level or a logic one signal level.

9. (ORIGINAL) A method as in claim 8, where the receiver of the stream of data performs toggling the one of the at least two multi-level signal buses between the first and the second signal levels to generate clock edges.

10. (ORIGINAL) A method as in claim 8, where a beginning and an end of the stream of data is signaled by setting at least one of the different signal buses to a third signal level.

11. (ORIGINAL) A Multi-level Analog Signaling (MAS) circuit arrangement comprising a transmitter to encode data bits represented by multi-level analog signals; at least two multi-level signal buses coupled between said transmitter and a receiver for conveying the encoded data bits such that, on each multi-level signal bus, during each data bit period the signal level is required to change from a first signal level to a second, different signal level; said transmitter indicating a data boundary to said receiver by holding one of the multi-level signal buses at the same level for at least two consecutive bit periods.

12. (PREVIOUSLY PRESENTED) A (MAS) circuit arrangement as in claim 11, where said transmitter operates to encode data bits such that, when a data bit to be encoded is the same as the data bit encoded for an immediately prior bit period, the transmitter instead encodes a strobe signal represented by a predetermined one of the levels of the multi-level analog signal, where the presence of the strobe signal at said receiver is used to generate a clock edge.

13. (PREVIOUSLY PRESENTED) A (MAS) circuit arrangement as in claim 12, where the multi-level analog signal comprises a PAM-3 signal, where two analog signal levels convey the encoded data bits and one analog signal level conveys the strobe signal.

14. (PREVIOUSLY PRESENTED) A (MAS) circuit arrangement as in claim 11, where the data boundary comprises one of the start or the end of a multi-bit frame.

15. (PREVIOUSLY PRESENTED) A (MAS) circuit arrangement as in claim 14, where the multi-bit frame comprises at least 24 bits for conveying 8-bit Red, Green and Blue data between said transmitter and said receiver.

16. (PREVIOUSLY PRESENTED) A (MAS) circuit arrangement as in claim 14, where the multi-bit frame comprises at least 24 bits for conveying 8-bit Red, Green and Blue data between a control unit of a mobile station and a display of the mobile station.

17. (PREVIOUSLY PRESENTED) A (MAS) circuit arrangement as in claim 14, where the multi-bit frame comprises at least 24 bits for conveying 8-bit Red, Green and Blue data between a control unit of a mobile station and a camera of the mobile station.

18. (PREVIOUSLY PRESENTED) A (MAS) circuit arrangement as in claim 11, where said transmitter and said receiver cooperate to transmit a stream of data by toggling one of the at least two multi-level signal buses between first and second signal levels to generate clock edges, and by setting, so as to coincide with a generated clock edge, a signal level of another one of the at least two multi-level signal buses at a signal level representative of a logic zero signal level or a logic one signal level.

19. (PREVIOUSLY PRESENTED) A (MAS) circuit arrangement as in claim 18, where said receiver of the stream of data toggles the one of the at least two multi-level signal buses between the first and the second signal levels to generate clock edges.

20. (PREVIOUSLY PRESENTED) A (MAS) circuit arrangement as in claim 18, where a beginning and an end of the stream of data is signaled by setting at least one of the different signal buses to a third signal level.

21. (ORIGINAL) A mobile station comprising a plurality of sub-assemblies coupled together by a plurality of data communication buses connected to ports, where at least one port

comprises a Multi-level Analog Signaling (MAS) circuit arrangement comprising a transmitter to encode data bits represented by multi-level analog signals; where a data communications bus that couples the transmitter to a receiver in another port comprises at least two multi-level signal buses for conveying the encoded data bits such that, on each multi-level signal bus, during each data bit period the signal level is required to change from a first signal level to a second, different signal level; said transmitter indicating a data boundary to said receiver by holding one of the multi-level signal buses of the at least two multi-level signal buses at the same level for at least two consecutive bit periods.

22. (ORIGINAL) A mobile station as in claim 21, where said transmitter operates to encode data bits such that, when a data bit to be encoded is the same as the data bit encoded for an immediately prior bit period, the transmitter instead encodes a strobe signal represented by a predetermined one of the levels of the multi-level analog signal, where the presence of the strobe signal at said receiver is used to generate a clock edge.

23. (ORIGINAL) A mobile station as in claim 22, where the multi-level analog signal comprises a PAM-3 signal, where two analog signal levels convey the encoded data bits and one analog signal level conveys the strobe signal.

24. (ORIGINAL) A mobile station as in claim 21, where the data boundary comprises one of the start or the end of a multi-bit frame.

25. (ORIGINAL) A mobile station as in claim 24, where the multi-bit frame comprises at least 24 bits for conveying 8-bit Red, Green and Blue data between said transmitter and said receiver.

26. (ORIGINAL) A mobile station as in claim 24, where the multi-bit frame comprises at least 24 bits for conveying 8-bit Red, Green and Blue data between a cellular engine of said mobile station and a display of said mobile station.

27. (ORIGINAL) A mobile station as in claim 24, where the multi-bit frame comprises at least 24 bits for conveying 8-bit Red, Green and Blue data between a cellular engine of said mobile station and a camera of said mobile station.

28. (ORIGINAL) A mobile station as in claim 21, where said transmitter and said receiver cooperate to transmit a stream of data by toggling one of the at least two multi-level signal buses between first and second signal levels to generate clock edges, and by setting, so as to coincide with a generated clock edge, a signal level of another one of the at least two multi-level signal buses at a signal level representative of a logic zero signal level or a logic one signal level.

29. (ORIGINAL) A mobile station as in claim 28, where said receiver of the stream of data toggles the one of the at least two multi-level signal buses between the first and the second signal levels to generate clock edges.

30. (ORIGINAL) A mobile station as in claim 28, where a beginning and an end of the stream of data is signaled by setting at least one of the different signal buses to a third signal level.

31. (ORIGINAL) A mobile station as in claim 21, where one of said sub-assemblies comprises a cellular engine that is coupled to circuitry external to said mobile station via another port and data communications bus.

32. (NEW) Circuitry comprising transmitter means comprising means for encoding data bits represented by multi-level analog signals; at least two multi-level signal bus means coupled between said transmitter means and receiver means for conveying the encoded data bits such that, on each multi-level signal bus means, during each data bit period the signal level is required to change from a first signal level to a second, different signal level; said transmitter means indicating a data boundary to said receiver means by holding one of the multi-level signal buses at the same level for at least two consecutive bit periods.

33. (NEW) Circuitry as in claim 32, where said encoding means operates to encode data bits such that, when a data bit to be encoded is the same as the data bit encoded for an immediately prior bit period, said encoding means instead encodes a strobe signal represented by a predetermined one of the levels of the multi-level analog signal, where the presence of the strobe signal at said receiver means is used to generate a clock edge.

34. (NEW) Circuitry as in claim 33, where the multi-level analog signal comprises a PAM-3 signal, where two analog signal levels convey the encoded data bits and one analog signal level conveys the strobe signal.